

**MICHIGAN DEPARTMENT OF CIVIL SERVICE  
JOB SPECIFICATION**

**ELECTRICIAN LICENSED**

**JOB DESCRIPTION**

Employees in this job function as licensed electricians completing and overseeing electrical work for construction and maintenance projects on state properties such as office buildings, prisons, hospitals, and highways.

There are two classifications in this job.

**Position Code Title – Electrician Licensed-E**

Electrician Licensed E9

This is the experienced level. The employee performs a full range of electrician assignments using independent judgment to make decisions requiring the application of procedures and practices to specific work situations.

**Position Code Title – Electrician Licensed-A**

Electrician Licensed 10

This is the advanced level. The employee functions as a crew leader, overseeing the work of lower level electricians, apprentice electricians, trades helpers, or prisoner crews.

**JOB DUTIES**

**NOTE:** The job duties listed are typical examples of the work performed by positions in this job classification. Not all duties assigned to every position are included, nor is it expected that all positions will be assigned every duty.

Studies blueprints and schematics and determines methods, materials, and equipment needed to complete the assignment.

Connects wires to plugs, switches, controls, light fixtures, traffic controls, appliances, motors, breaker panels, and switchboards.

Splices wires by stripping insulation from wire leads, twisting, clamping, and/or soldering leads together and applying insulating terminal caps using a variety of hand tools; makes underground waterproof splices.

Disassembles, repairs and reassembles or replaces defective electrical equipment such as plugs, switches, outlets, controls, ballasts, motors and appliances using hand tools, test equipment, and service manuals.

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Tests installations to check and insure continuity of the circuit, and the compatibility and safety of all components using test equipment such as an ohmmeter, ampmeter, voltmeter, oscilloscope, or battery buzzer.

Measures, cuts, bends, threads, assembles, and installs electrical conduit, junction, switch, outlet boxes, and switch boards using hand tools and such special equipment as mechanical drills, cutters, benders, and threaders.

Cleans and lubricates equipment, and maintains records on equipment status and maintenance.

Installs and repairs telephones, light fixtures, electrical controls, motors, and appliances using hand tools and electric drills.

Inspects and evaluates electrical equipment to ensure that it operates efficiently and safely; determines whether equipment and new installations meet requirement of the National Electrical Code.

Pulls wire through conduit.

Determines materials needed for most frequently occurring repair work, prepares requisitions, and monitors inventory.

Cleans and maintains tools and performs routine maintenance on special equipment used in electrician's work.

May assist in training lower level apprentice electricians and others.

Performs related work appropriate to the classification as assigned.

### **Additional Job Duties**

#### **Electrician Licensed 10 (Crew Leader)**

Assigns work to lower level electricians, apprentice electricians, trades helpers, or prison inmates.

Provides instruction and training in the proper methods and processes necessary to carry out electrician assignments.

Reviews job performance by observing and critiquing work techniques and completed assignments.

Develops plans and estimates for electrical projects; includes determining time, equipment, and human and material resources needed to complete the work.

Prepares written reports on ongoing projects and on the condition of machinery.

**JOB QUALIFICATIONS**

**Knowledge, Skills, and Abilities**

**NOTE:** Considerable knowledge is required at the experienced level, and thorough knowledge is required at the advanced level.

Knowledge of the principles of electricity and electronics.

Knowledge of the electrical codes which typically apply to the work assignment.

Knowledge of the standard methods, materials, tools, and equipment of the electrical trade.

Knowledge of electrical devices such as controls, switches, starters, transformers, motors, and panel boards.

Knowledge of the potential occupational hazards connected with electrical work and the safety standards and practices, which should be applied.

Skill in the use of the tools of the electrical trade.

Skill in the installation of electrical devices.

Skill in diagnosing the cause of electrical breakdowns.

Skill in repairing and adjusting electrical devices.

Ability to interpret and apply blueprints, schematics, maintenance manuals, and assembly instructions.

Ability to study and comprehend new technology.

Ability to make mathematical computations.

Ability to work from ladders, scaffolds, hydraulic towers, or in tunnels and crawl spaces.

**Additional Knowledge, Skills, and Abilities**

**Electrician Licensed 10 (Crew Leader)**

Ability to explain instructions and guidelines to others effectively.

Ability to assign work to employees.

Ability to prioritize the work of others.

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Ability to organize and coordinate the work of the unit.

### **Working Conditions**

Work may be performed from ladders or hydraulic lifts in high voltage areas.

Some jobs require an employee to work in a hostile environment, on high structures, and be exposed to inclement weather conditions.

Some jobs may be located in a correctional facility, and may require direct contact with prisoners.

### **Physical Requirements**

The job duties may require an employee to climb ladders, or to bend or stoop in confined spaces.

### **Education**

Educational level typically acquired through completion of high school.

### **Experience**

#### **Electrician Licensed E9**

No specific type or amount of experience is required beyond that required for licensure.

#### **Electrician Licensed 10**

One year of electrical trade experience equivalent to an Electrician 9 in state service.

### **Special Requirements, Licenses, and Certifications**

Possession of a journeyman electrician's license.

Some positions may require possession of the Commercial Driver's License (CDL) issued by the Secretary of State as required by Public Act 346 of 1988 to operate a designated state vehicle.

## **JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION**

<b><u>Job Code</u></b>	<b><u>Job Code Description</u></b>
ELECTRCIN	Electrician Licensed

<b><u>Position Title</u></b>	<b><u>Position Code</u></b>	<b><u>Pay Schedule</u></b>
Electrician Licensed-E	ELECTRNE	A31-009
Electrician Licensed-A	ELECTRNA	A31-012